

Eric M. Mindich Conference on Experimental Social Science

“Action Research in Psychology and Economics”

Summary of Presentations

Friday, March 4, 2004

1. Practical Importance of Psychological Effects: A Sample Collaboration

“What’s Psychology Worth?: A Field Experiment in the Consumer Credit Market”

Marianne Bertrand, University of Chicago

Dean Karlan, Princeton University

Sendhil Mullainathan, Harvard University

Eldar Shafir, Princeton University

Jon Zinman, Federal Reserve Bank of New York

In the context of loan provision for poor people in South Africa, this talk explored the tensions and synergies between psychology and economics. In the traditional economic model, people are well informed, rational, selfish, maximizing, and opportunistic. In psychology, by contrast, decisions are not based so much on objective states of the world, but rather on mental representations of reality, which allows for the possibility of construction of preferences, emotional and not necessarily well-calculated decisions. Behavioral economics studies the intersection of the two fields, realizing that the empirically observed agent possesses characteristics compatible with both economic and psychological models.

The field experiment of Bertrand et al. addresses the question of how we can use the combination of economic and psychological insights in order to design better social programs. In this field experiment, the clients of a South African bank received promotional letters offering them short-term loans at randomly selected interest rates. Different psychological manipulations were also randomized and included in the letters in order to evaluate their impact on loan take-up rates and compare it to the impact induced by varying the interest rate. Such manipulations addressed loss aversions, proliferation of options, power of suggestion, reminders, deadlines, and subtle peripheral cues in the form of a gender and race variation of a photo in the corner of the letter. The findings of the experiment indicate that, consistent with standard economics, the interest rate significantly affected loan take-up. A 1% decrease in the interest rate increased loan take-up by about 4%. Inconsistent with standard economics, however, the psychological manipulations also significantly increased loan take-up. In terms of option proliferation, giving people fewer choices to make increased the take-up rate by the same magnitude as dropping the interest rate by 2.3 percentage points. There was no effect found for the race of the photo, however, both seeing a photo of the opposite sex and seeing a female photo increased take-up by about 1.3 to 2.5 percentage points in interest-rate terms. Interestingly, if attention was restricted to male customers only, changing the photo on the letter from male to female increased take up rates by as much as dropping the interest rate by 4.5 percentage points. In terms of the effect of deadlines, the result was that medium deadlines produced better take-up than short deadlines and long deadlines. Suggestion effects were also significant. Both a suggestion phone call before sending out the letter and suggested loan usage in the letter increased take-up significantly. The psychological

manipulations that did not have a significant effect on the take-up rates were race of the photo, loss aversion, and promotional lottery, which indicated that if the client applies for a loan he/she would have a chance to win a cell-phone. As a conclusion, some psychological factors did not work, but others were very important drivers of behavior, even in a market setting with large stakes and experienced customers. Economic models might thus be missing very important psychological determinants of choice, the inclusion of which, albeit not an easy task due to their context-specificity, is an essential objective if economic models are to be accurate descriptors of economic behavior.

2. Affective Forecasting and Health Choices

"The Demand for Health Information: Randomization and HIV Testing in Malawi"
Rebecca Thornton, Harvard University

The motivation for this study is based on prior information about high HIV prevalence rates in South Africa and the underlying assumption that learning one's status motivates positive behavioral changes. The main question to be answered is "What is the demand for knowing one's HIV results?" When surveyed, 90% of the respondents said that they indeed wanted to know their HIV status. However, only about 35% of the people who had actually been tested for HIV returned to the clinic to obtain the results. The possible costs of obtaining one's HIV results include fear of a positive diagnosis and the unhappiness associated with it, monetary and opportunity costs, and stigma. In order to gauge the demand for HIV results, these costs have to be compared to the benefits, which include reduction of uncertainty and anxiety, prevention of self and others, and happiness after a negative diagnosis.

The theoretical comparison of these costs and benefits is difficult, due to the inability to measure them appropriately. This study attempts to estimate directly the demand for HIV results through a randomized evaluation. A population in Malawi was tested for HIV in 2004. As the patients were leaving the testing clinic, they were given vouchers for a randomly determined amount of money to be collected when they went to a center to pick up their results from the HIV test. These centers were chosen so as to randomize the distance a person has to travel in order to pick up his/her results. The findings of this experiment indicate that about 69% of the people who were tested returned for the results. Of the people who got zero-Kwacha vouchers, only 38% returned for the results, indicating that offering even a small amount of monetary incentives induced a remarkable increase in the demand for receiving the HIV results (being offered any incentives increased the probability of returning by 28 to 47 percentage points). An increase of the distance to the test-pick-up location decreased the likelihood of returning for the results. The importance of this experiment is that small amounts of money might give people incentives to obtain their HIV results and counteract the obstacles created by fear or stigma.

"Affective Forecasting, Adaptation, and Health"
Tim Wilson, University of Virginia
Daniel Gilbert, Harvard University

While research on people's predictions about future events is abundant, there has been relatively little work done on the predicted emotions resulting from future events. Since people often base major decisions on affective forecasts, it is important to study the accuracy and mechanisms of future happiness predictions.

An important characteristic of affective forecasting is the impact bias: one's tendency to overestimate the enduring impact of future events on one's emotional reactions. For example, if people are asked before receiving their HIV test results, how happy they would feel if they got a negative or positive result and then asked again how happy they actually are after receiving their results, we see that they overestimate their happiness from a negative and overestimate their unhappiness from a positive result. Wilson and Gilbert identify the major cause for the impact bias to be the fact that people adapt more quickly to positive and negative events than they anticipate. Furthermore, they develop a model under the acronym AREA (Attend, React, Expect, Adapt) in order to explain this affective adaptation. The model asserts that people's attention is captured mostly by events that are important or poorly understood, and that the reaction following such events is the most intense. After the immediate reaction, people automatically try to make sense of the important or poorly understood events transforming them into something ordinary and predictable, which facilitates the adaptive phase. As a result of this chain of processes, people automatically make sense of a shock or a change in their environment, which makes negative or positive occurrences to have less of an emotional power.

In support of the AREA model, Wilson and Gilbert present the following experiment: Subjects sitting in a library are given a dollar attached to a card. In one condition, the card is in a question and answer format that is relatively easy to make sense of, in the second condition, only the answers are provided. The subjects are then surveyed to assess their levels of happiness resulting from the gift. It turns out that people who got only the answers were happier five minutes later than people who got the card in the question-and-answer format. A separate group of "forecasters" predicted that they would be happier if they had received the questions-and-answer card. This experiment suggests first that people fail to anticipate how quickly they will adapt to a shock, and second that people adapt faster to events that are easier to explain. These conclusions give us a better understanding of why people react much less to either positive or negative events than they anticipate they would and lead to the important and controversial question of whether we should help people be better calibrated.

3. Stereotype Threat, Education and Poverty

"Stereotype and Social-Identity Threat"
Claude Steele, Stanford University

How can we help women overcome the widespread belief that they are less competent in quantitative sciences and allow them to perform at their best? How can we arrange a working environment so that people from all backgrounds can feel good in it and flourish? The answers to these questions necessitate an understanding of the concept of a stereotype, or social identity. Social identity is that part of our personal identity, which comes from our membership into various social groups on the basis of race, gender, age, religion, profession, nationality, health, etc. The contingencies attached to a social identity are the particular ways in which society is set up to judge and treat people having that social identity. Could a particular social identity and the contingencies attached to it affect one's actual abilities? Yes, to a great extent. When women and men who are all very good at math are given a difficult exam, what they are told about it beforehand impacts scores obtained on the exam. If they are not told anything, thus not counteracting the pre-existing stereotype of women being weaker in math, women indeed perform much worse than men, despite the fact that all participants have been chosen to be equally competent. However, when an announcement is made that on this particular exam, women and

men usually score the same, women actually perform just as well as men do. Similar to performance on an exam, identity contingencies affect entire walks of life: career choice, relationships, residence, etc.

The effects of stereotype threats may be further exacerbated through incidental cues. A handicapped person feels even more uncomfortable when he/she enters a restaurant with no access ramp and closely positioned tables; an older person may feel even more out of place among younger colleagues if the work environment is characterized by loud music and bikes hanging from the ceiling.

Two types of interventions are possible to diminish the negative effects of stereotype threats. The first one is to make the context more neutral and devoid of incidental cues, to construct an environment allowing all people to feel comfortable and flourish. The second one is at the individual level and involves building people's self esteem and ability to set up and follow their goals and thus diluting the dangerous effect of stereotype threats.

“Experimental Analysis of Neighborhood Effects on Youth”

Larry Katz, Harvard University

Jeffrey Kling, Princeton University

Jeffrey Liebman, Harvard University

There are both apparent advantages and disadvantages to moving out of high-poverty neighborhoods. Some adverse effects include having a lower relative social status in the new setting and facing discrimination, resentment, cultural conflict, and stereotyping. On the other hand, positive effects include more access to community resources, more positive peer influences and role models, better education and safer environment. In addition, an argument could be made that there is no effect at all since genes, family, and personal disposition are all that matters for one's outcomes in life. This study aims to evaluate the effects from moving out of high-poverty neighborhoods using an exogenous change in the residential location induced by a public housing project called Moving To Opportunity.

Young people, initially living in high-poverty areas, were randomly assigned into three groups. The Experimental group was given access to a counselor and a voucher subsidizing 70% of their rent (called “section 8 voucher”), initially valid only for tracts below 10% poverty. The Section-8 group was given a conventional section 8 voucher. The remaining people served as a control group. This experiment, with the randomization of people into the three groups, solves the main problem underlying evaluation of the effect of moving out of poor neighborhoods: the endogeneity associated with choosing when to move out of a high-poverty neighborhood and where to relocate. As a result of the program, people who used the experimental vouchers to move out of their neighborhoods ended up living in less poor neighborhoods than the people from the control group, had better educational outcomes, engaged in less risky behavior, had much better mental health outcomes and better physical outcomes in terms of reduced obesity. In addition, it seems that female youth benefited more from the vouchers than the male youth across all outcome domains. In fact, males were often adversely affected by the change of neighborhood. The difference between Section-8 group outcomes and control group outcomes is not as big as between the experimental and the control groups, but the results go in the same direction.

What are some possible explanations for the observed adverse effects for males moving out of the

high-poverty neighborhood? The study shows that neighborhoods, schools and home environments of female and male youth do not differ significantly. However, girls have more positive contact with role models in the community who are also more likely to actively monitor them, which increases their ability to benefit from the relocation to a less poor environment. The more adverse consequences for the boys potentially emerge from their tendency to behave as expected and thus conform to the stereotype attached to them as they enter the new environment.

4. Persuasion and Choices

“Understanding Multiple Roles for Variables in Persuasion:
The Impact of Emotion as a Case Study”
Richard Petty, Ohio State University

Attitudes, norms, habits, skills and abilities are based on evaluations, in one form or another, which drive behavior. Thus, if we want to change one's behavior, it makes sense to try to persuade them to change their evaluations. The Elaboration Likelihood Model offers a description of what methods lead to effective persuasion and explains the mechanisms by which they work. An important assertion of the model is that in any given situation, the likelihood of elaboration varies from low thinking (not thinking very carefully about the available information) to high thinking (thinking very carefully about all aspects of the available information). Different strategies are successful for persuasion, depending on the level of thinking. In low-thinking modes variables (e.g., source attractiveness, one's mood, etc.) are processed as simple cues, so the number and the type of substantive issue-relevant thoughts have little impact. Rather, people may use simple heuristics such as, “if I feel good, it must be good.” When thinking is high, the number of thoughts people are induced to have matters, as well as whether these thoughts are positive (favorable to persuasion) or negative (undermining persuasion). In addition, confidence in the thoughts is important as well, since even if elaboration is high and the thoughts are positive, if there is doubt about the validity of the thoughts, they are less likely to be persuasive and acted upon. Thus, increasing confidence in positive thoughts aids persuasion, while increasing confidence in negative thoughts inhibits it. Numerous variables have been shown to influence confidence in one's thoughts such as how easily they come to mind, whether they receive approval from others, and so forth.

Another important point conveyed by the Elaboration Likelihood Model is that, using different mechanisms, the same variable can change evaluations by different mechanisms at different points on the elaboration continuum. For example, seeing an attractive face while elaboration is low may serve as a simple cue and persuade a customer to buy the advertised product. In a high-elaboration mode, however, the attractiveness of the source is processed as evidence and can lead to favorable attitudes if it is relevant to the merits of the product (e.g., a cosmetic). Or, an attractive source might bias the processing in a favorable direction if a desire to be “like” the attractive source is elicited. In addition to being important for the mechanism through which evaluations are changed, the extent of elaboration also matters for the persistence of the change, its resistance, and impact on behavior. The same variable can produce weak or strong changes in attitude depending on whether it is applied at low or high levels of thinking. For example, participants in one experiment were asked to decide whether the weight of Julius Caesar was higher or lower than a randomly generated number. Then, they were asked to give their best estimate of the actual weight. What usually happens in such settings is that people's final answers turn out to be correlated with the initial random number they were assigned, a phenomenon known in the psychology literature as

“anchoring”. In addition, however, some of the participants were given another cognitive task while making their decision, which induced lower levels of elaboration on the actual weight of Julius Caesar. After a one-week delay, participants were asked to make the same estimate. Interestingly, the anchoring effect for people who were not distracted by an additional cognitive load was more pronounced, indicating that judgments formed under high thinking are generally more consequential than the same judgments formed under low thinking.

"Understanding Technology Adoption: Fertilizer in Western Kenya"

Ester Duflo, Massachusetts Institute of Technology

Michael Kremer, Harvard University

Jonathan Robinson, Princeton University

Chemical fertilizers give excellent results in terms of crop yield, they are suitable for the environment, promoted by agricultural experts, and adopted in some developing countries, like India and some provinces of Kenya. Yet, in Western Kenya only 20% of the farmers use fertilizer. There are three potential explanations for this apparent puzzle. First, it may be that fertilizer is not very profitable when used on individual farms, since it may require special care or specific complementary inputs. Second, it is possible that farmers simply do not know that fertilizer is profitable. And third, people may be too poor to afford fertilizer.

This study evaluates each of the three possible reasons for low technology adoption in the context of fertilizer usage in Western Kenya. Randomized evaluation is used to assess whether fertilizer is profitable when applied to individual farms. The results suggest that applying half a teaspoon of fertilizer at “top dressing” (when the plant is knee-high) is very profitable, increasing the yield per season by about 150%, and thus ruling out the first reason as to why fertilizer may not be adopted. Using a full teaspoon of fertilizer, however, was not as profitable as using half a spoon and the “full package” (fertilizer applied at both planting and top dressing, as well as using hybrid seeds), recommended by the ministry of agriculture, was not profitable. Thus, one might think that even if fertilizer is extremely beneficial when used appropriately, there may still exist some confusion among the farmers as to whether it is profitable and what is the best way to apply it. If that is the case, then we would expect to see fertilizer usage increasing for farmers who have learned how to apply fertilizer and have witnessed the higher yields. There are two ways to learn, by doing and from others. When we look at farmers who participated in the pilot experiments and used fertilizer on their own plots, we see that in the following season, their adoption rate is only about 17 percentage points higher than that of the farmers who did not participate in the pilot. In the following seasons, that difference falls to 9 percentage points and remains that low for consecutive seasons, thus indicating that learning by doing is not a major driver of fertilizer adoption. When we look at the pilot farmers’ agricultural contacts and neighbors, we find little effect (even a slight decrease for neighbors) on their fertilizer usage. The effect of inviting neighbors to the agricultural trials and of distributing “starter kits” (giving farmers fertilizer with directions how to use it) was as big as the adoption rate increase of pilot farmers themselves, thus providing evidence in favor of a starter-kit intervention. As a conclusion, learning how to appropriately use fertilizer and experiencing that it is very profitable did not increase adoption very much.

To assess the validity of the third reason for low adoption rates, some farmers were offered a commitment savings device under the SAFI (Savings and Fertilizer Initiative) program. They had the opportunity to purchase fertilizer right after harvest, the time when they had the most cash-on-hand. In order to be able to evaluate the effectiveness of SAFI, a group of farmers was visited at top dressing time (not at harvest) and offered to purchase fertilizer either at full price (for some

farmers) or at half price (for others). Adoption rate was about 40% by the farmers who accepted SAFI, 21% by farmers who were visited without subsidy, and 45% by farmers who got a 50% subsidy, thus showing that SAFI was effective above and beyond the endorsement by the experimenter or the convenience of the purchase, and was approximately equivalent to a 50% subsidy. In conclusion, the study suggests that people's inability to save is an important reason for low fertilizer usage.

Saturday, March 5, 2005

1. Discrimination

“From Associative Strength to Action Research”

Mahzarin Banaji, Harvard University

In order to understand how memory works, memory research historically has depended on conscious measures of memory, like free recall, until revolutionary data on amnesic patients became available. People with amnesia usually cannot remember events that are too far in the past, and the more severe the disease is, the shorter the period for which they can recall an occurrence (sometimes as short as a few minutes). Yet, when poked with a pin on the hand, next time they are asked to extend their hand, they hesitate; when told a joke over and over again, they find it less funny. Even though no explicit recall is possible, something seems to be saved, possibly something at the affective level.

In an experiment, subjects were given a list of names from three categories: random names from a phonebook seen by the subjects on the previous day, unfamiliar random names from a phonebook, and names of famous people. When they were asked which names they identify as being famous, together with the actually famous names people listed phone-book names seen the previous day, again suggesting that there may be a difference between what can be consciously recalled and subconsciously saved. Similarly, we know consciously what it means to be a good human being, but prejudices may still be embedded at the subconscious level. The Implicit Association Test (IAT) is a methodological approach to indirectly measuring prejudice, or subconscious biases, based on a subject's response time to images (old, young, thin, fat) and concepts (joy, pain, happy, awful) flashing on a screen. Some predictions of IAT include relative unfriendliness towards African Americans and gay men, and discrimination against female job applicants.

When we explicitly ask people, “Do you endorse the stereotype that African-Americans are superstitious, lazy, happy-go-lucky, ignorant, and musical?” we see that the percentage of people who agree with this stereotype goes down as we move from the 1930s to the 2000s. Interestingly, however, when we ask people how much they think others endorse the stereotype, the reported percentage does not appear to decrease much over time, indicating that individuals may perceive themselves as less biased than society as a whole. While it may be hard to willfully change prejudices in society, especially if they are not consciously acknowledged, there may be scope for small interventions at the individual, unconscious level. It may be appropriate to think of environments as being micro-level objects. Just because people grow up together, for example, doesn't mean that they have the same perceptions and attitudes; even siblings can differ greatly in their understanding of the world. Thus, prejudices at the unconscious micro-level can tell us a lot about how the whole world works, similarly to the way electrons can reveal how the universe works, and may be very appropriate targets when trying to change perceptions.

“Income, Health, and Well-being in Rural Rajasthan”
Abhijit Banerjee, Massachusetts Institute of Technology
Angus Deaton, Princeton University
Esther Duflo, Massachusetts Institute of Technology

What are the determinants of self-reported well-being? Presumably factors that usually enter economic utility models, like consumption, health, and wealth are important, but how about social status? Previous research has found that, in certain contexts, rank and status affect health and well-being. This study explores how social status affects self-reported well-being, using caste as an exogenous measure and income rank as a more endogenous measure of status.

One hundred hamlets from 362 villages were surveyed. The information collected consists of a village census, survey of the available facilities, data from weekly facility visits, and an extensive household survey including reported and direct measures of economic status, happiness, and health. The population of rural Rajasthan is highly tribal and very poor, more than 40% of the households are below the official poverty line, the majority are illiterate and do not have electricity. People’s objective health status is very low, 80% of the women and 27% of the men have hemoglobin < 12 gm/dl, which puts them below the standard cutoff for being anemic. Many report symptoms of poor health such as fever, colds, aches, difficulty walking and squatting. Surprisingly, the self reported health status and happiness are high. On a scale of 1 to 10, 62% choose between 5 and 8, while only 7% choose 1 or 2 for their health, and on a 5-point scale for happiness, 46% report 3, while only 9% report 1. Self-reported economic status, however, seems to be more realistic, with 70% reporting 1 or 2 on a 10-point scale, i.e. people realize that they are very poor. Both the public and the private health care systems in rural Rajasthan are very bad. Objective measures of health are correlated with the poor health-care provision, but self-reported measures of health and happiness are not.

In the regression framework of the study, the distinction between high and low castes is used as an exogenous measure of status and income rank is constructed based on per capita consumption expenditures, both within the caste and within the whole village. Self-reported income status, health and well-being are regressed on caste and rank while controlling for individual differences in age, gender, expenditures, measures of health and proxies of mental health, risk exposure, income, education, and village. The regression results indicate that being high caste makes one report significantly higher income status, although the effect decreases when we control for objective wealth. Being high caste also makes one report significantly higher health and higher well-being, but the effect on well-being becomes insignificant when we control for wealth. Having higher rank, either in the caste or in the village, does not affect self-reported health or happiness, but reduces the self-reported income. As a conclusion, it seems that people with higher status (as measured by caste) feel happier, healthier and richer, with the effects on health and perceived income remaining significant even after controlling for objective wealth.

2. Health Messages

“Evaluating HIV/AIDS Prevention Education in Primary Schools”
Michael Kremer, Harvard University
Esther Duflo, Massachusetts Institute of Technology
Pascaline Dupas, New York University
Samuel Sinei, Jomo Kenyatta University of Agriculture and Technology

The relatively high HIV infection rates in Kenya (7% to 15.3%), the considerable amount of sexual activity (48% of girls and 61% of boys at age 18, self reported) and the low condom usage (about 40% of sexually-active teens) call for a government intervention. The response of the Kenyan government includes three programs, the effectiveness of which is evaluated by this study. The first intervention is training teachers on AIDS education, in terms of facts and methodology. The second one consists of critical thinking activities for pupils in grades 7 and 8 on HIV prevention strategies. In half of the schools debates were organized with the following theme, "Primary school pupils should be thought how to use condoms", and an essay competition took place on "What decisions can you make to protect yourself from HIV infection now and at other ages in your life?". The third intervention was a reduction in the cost of education by providing school uniforms for the cohort in grade 6 in 2003.

While currently a work in progress, the study gives intuition for the strategies used to evaluate each of the three interventions and provides some preliminary results. The way to evaluate whether the critical thinking activities led to safer behavior includes using pupils' KAP surveys and results from focus groups to assess whether pupils' knowledge and attitudes toward HIV/AIDS prevention improved. Teacher training, if effective, is supposed to increase HIV/AIDS education in schools and thus lead to improvement in pupils' awareness and safer behavior. In order to evaluate this channel, teachers' and pupils' reports are used. Finally, uniform provision should induce pupils to stay in school longer, thus leading to better education, more secure environment, and safer behavior. For the evaluation of the effectiveness of the reduced school costs, attendance and dropout rates (to see whether pupils stay in school longer) as well as childbearing rates (to assess whether behavior has become safer) are used.

From teachers' reports, it seems that the intensity of teacher training increased the probability that HIV/AIDS issues were integrated in the curriculum, that condoms were mentioned as means of prevention, and that teachers were involved in health activities. From pupils' reports, it is also apparent that in the schools with trained teachers, HIV/AIDS issues were mentioned in class more in comparison with the schools lacking trained teachers. In addition, uniform provision reduced the dropout rate for girls. Thus, the results suggest that teacher training and uniform provision are effective interventions, at least in terms of the first necessary stages of the process leading to safer behavior.

"The Framing of Public Health Messages"
Peter Salovey, Yale University

One of the main ideas in prospect theory is that losses loom larger than gains, meaning that one feels more unhappiness from losing a certain amount than happiness from gaining that same amount. As a result, people are usually risk averse when it comes to gains and risk seeking when making decisions about losses. Consequently, this study predicts that loss frames should be more effective when trying to promote detection behavior, while gain frames should be more effective for prevention behavior. Detection behavior, like mammography, could be perceived as risky or uncertain. Prevention behavior, on the other hand, like the usage of sunscreen and condoms, is not perceived as risky, but rather as beneficial in its prevention of a health problem.

In a mammography experiment, women who were generally noncompliant with mammography guidelines were shown one of two videos: “The benefits of mammography” (gain frame) or “The risks of neglecting mammography” (loss frame). The utilization of mammography by these women was then measured 6 months later. As a result, the women who saw the loss-framed video had higher utilization rates than the women who saw the gain-framed video (50% vs. 36%), thus supporting the prediction that loss frames are more effective when trying to elicit detection behavior than gain frames. Evidence for the prediction that gain frames would be more successful at driving prevention behavior is offered by the following experiment. Beachgoers in Connecticut were given either a gain-frame (the higher the SPF you use, the more protected you are) or a loss-frame (the lower the SPF you use, the more you will be harmed) pamphlet and a coupon redeemable for sunscreen. The result was that about 73% of the people who read the gain-framed pamphlet exchanged their coupon for sunscreen vs. 52% of the people who saw the loss-framed pamphlet. In addition, people exposed to the gain frame got sunscreens with higher SPF.

When behavior can be described either as prevention or as detection, like Pap testing, the most effective strategy is to frame the activity as either detection or prevention first and then use the loss or gain frames respectively. As a result of such an experiment, when Pap testing was framed as prevention, the gain frame outperformed the loss frame and vice versa when it was framed as detection. Furthermore, individuals may construe some behaviors as either detection or prevention, like HIV testing. In that case, the effectiveness of loss vs. gain frame depends on how risky the individual perceives the behavior to be. In an HIV testing experiment, women who perceived HIV testing as a low-risk behavior with certain outcomes were more inclined to get tested after a gain-framed message (38% vs. 26%), while women who perceived HIV testing as risky behavior with uncertain outcomes were more influenced by a loss-frame message (47% vs. 40%), as reported 6 months after the experiment.

3. Culture, Class, Poverty and Well-Being

“Educational Attainment, Agency, and Choice”

Hazel Markus, Stanford University

This study presents two models of agency, or the sense people have about themselves as actors in the world. The disjoint model emphasizes individualism and an autonomous self whose normatively good actions are separate from the actions of others, basic, natural, freely chosen, and contingent on one’s own preferences, goals and intentions. The conjoint model, by contrast, emphasizes relationships and asserts that normatively good actions are responsive to others and arise when the self is cast in an appropriate social interaction. The agent in this model attends to the obligations and expectations of others and thus individual preferences, goals, and intentions are interpersonally anchored.

The notion that choice, self-determination, and uniqueness are desirable and good is tied primarily to a disjoint model of agency, and is appropriate for European American context. The conjoint model, however, is more suitable for East Asian contexts, where others-regarding behavior is crucial and choice is perceived as implicating others. When East Asians and European Americans were asked to fill out a survey at an airport, they were given as compensation the choice between five pens, the majority of which were one color and the rest another. East Asians overwhelmingly chose the majority pen, while European Americans – the minority pen. Interestingly, when the same experiment was carried out with working class (in general, people having less than a bachelor’s degree) and middle class (people with bachelor’s degree) Americans, the results were

that working class people usually picked the majority pen, while people from the middle class picked the minority pen. In a survey, which asked about reasons why life has gone well, middle class respondents were more likely to mention setting their own goals and reaching them, being able to influence circumstances and achieve success, while working class respondents were more likely to mention adjusting themselves to circumstances and fulfilling their responsibilities to others. Furthermore, surveys and experiments indicate that middle class people do not like threats to their uniqueness (a friend buying the same car, for example), while working class people like reinforcement and approval by others. Middle class people prefer to be able to choose for themselves, while working class people enjoy receiving and having others choose for them.

The aforementioned differences between people, whether they come from national background or educational attainment, favor the coexistence of the disjoint and conjoint models. In order to develop a comprehensive study of psychology and have a better grasp of what determines behavior, we need to be able to incorporate and appreciate the context-contingent nature of human agency.

“Do Neighborhoods Matter for Disadvantaged Families?
Evidence from the Moving to Opportunity Experiment”

Larry Katz, Harvard University
Jeffrey Kling, Princeton University
Jeffrey Liebman, Harvard University

Is it possible to change where people live simply by giving them housing vouchers subsidizing rent in less poor neighborhoods? Does it matter for their well-being? “Moving to Opportunity” is a household mobility experiment carried out in Baltimore, Boston, Chicago, Los Angeles, and New York between 1994 and 1997. Families eligible for the program had children living in public housing or in high-poverty neighborhoods (with poverty rate above 40%). Families were randomly assigned into three groups: the Control group received no vouchers, the Section-8 group received conventional Section-8 vouchers (subsidizing 70% of their rent), and the Experimental group received restricted Section-8 vouchers (valid only for tracts below 10% poverty) and access to mobility counseling. The neighborhoods targeted by the program were characterized by high unemployment (about 80% of household heads), largely single-parent female-headed households (87%), and primarily black and Hispanic population. Fear of violent crime was indicated as the main reason for moving.

The results of a survey, conducted in 2002, indicate that experimental and Section-8 households, while still living in disproportionately minority neighborhoods, relocated to higher income areas with lower crime and better living conditions, with the effect being greater for experimental households. There was a remarkable improvement in the self-reported mental health adult outcomes. Experimental-group adults stated significantly lower psychological distress, they were less worried, and more calm and peaceful. The effect of the program on Section-8 households went in the same direction, but was smaller in magnitude. In addition, physical health improved (mainly in terms of decreased obesity) for households that received vouchers. There was no

significant overall impact on economic self-sufficiency, although there were positive effects on younger household heads. The significant improvement in mental health and the reduction in obesity observed in the experimental group suggest an important relationship between the environment and health outcomes.

“The Behavioral Economics of Poverty”

Marianne Bertrand, University of Chicago

Eldar Shafir, Princeton University

Sendhil Mullainathan, Harvard University

Twelve million households in the US do not have any bank accounts and, when needed, use alternative financial services (check-cashing, money-orders, etc) with fees ranging from 250% to 800% higher than the same services offered by banks. There are two familiar views regarding this apparent puzzle in the financial behavior of the poor. The Rational Choice view claims that all behavior results from calculated adaptation to prevailing circumstances, in the process of which people are characterized by willpower, adequate cognitive abilities and well-defined preferences. Thus a rational explanation for the puzzling behavior of the poor is that costs of accessing banks' financial services are too high, since banks are often located far, fees are not negligible, and the poor may be treated less politely. In terms of policy implications, the Rational Choice view suggests opening bank branches in poor neighborhoods and subsidizing accounts held by the poor, potentially having the government or banks incur large costs. However, it is hard to believe that actual costs of opening a bank account are so high for the poor that they would forego the huge benefits associated with it. The Pathology view, on the other hand, asserts that there exist psychological pathologies specific to the poor, like extreme myopia, lack of appropriate planning, confused (or “wrong”) values. The explanation for the poor's puzzling inaction comes from the belief that they are too impatient to engage in novel behavior and explore its benefits and, in addition, have deep distrust in financial institutions, possibly due to lack of financial knowledge. Policy interventions suggested by the Pathology view include, possibly very costly, financial education and early stage intervention in children. Thus, a common theme to both views is the idea that the problem has major causes and calls for big interventions.

This study suggests a third view and another way to explain and improve the problematic financial behavioral of the poor: the Behavioral Perspective. This view suggests that the poor are neither rational, nor extremely confused; they are just like the rest of the world, characterized by common psychological biases in decision-making and judgment, limited willpower, malleable preferences, and susceptibility to the influence of contextual factors. It is possible that small situational barriers, like sneers from tellers and long bus rides, have significant impact on behavior, leading to continual procrastination, avoidance, and eventual change in preferences. Not extreme, but normal myopia, exhibited by all people (e.g. insufficient retirement savings or medical exams), can turn the small costs of banking into barriers to opening an account right now, behavior which unravels into not opening an account ever. And so, the Behavioral view suggests that the big puzzle of inadequate banking by the poor has subtle psychological causes, curable by small interventions.

An example of a small intervention with considerable effects is a field experiment performed in Chicago during the summer of 2004, which shows how we can use knowledge in psychology to improve access to banks, usage of financial services, as well as budgeting and saving patterns of the poor. Prior to the experiment, a program providing subsidized bank accounts to the poor was implemented, but was not very successful. Subsequently, the following intervention was undertaken: free tax preparation / quicker tax return were used to attract people to a bank site,

exploiting preference for immediate gratification. The presence of a bank representative at the site who would offer opening a bank was randomized. There were three experimental groups: people who only talked to a bank representative, people who were only offered a financial workshop, and people who were offered both. The rest of the people served as a control group. The results of this field study suggest that the presence of a bank representative at the site increased the probability of opening and keeping an account, increased savings and decreased check cashing, thus indicating that the small intervention, based on prior psychological knowledge about human behavior, had a major beneficial impact on the banking and saving patterns of the poor, a result, which expensive subsidies and financial training have had difficulty achieving.

**Eric M. Mindich Conference on Experimental Social Science
Co-sponsored by the National Institute on Aging**

“Action Research in Psychology and Economics”

Friday, March 4

Harvard Law School, Langdell Hall North, Vorenberg Room (#225)

9:00 - 9:30: Registration and Continental Breakfast

9:30 - 9:45: **Opening Remarks:** Sendhil Mullainathan and Tim Wilson

9:45 - 10:45: **Practical Importance of Psychological Effects: A Sample Collaboration**

"Behavioral Economics of the Poor," Marianne Bertrand, University of Chicago,
Eldar Shafir, Princeton University and Sendhil Mullainathan, Harvard University

10:45-11:00: Break

11:00 – 12:30: **Affective Forecasting and Health Choices**

"The Demand for Health Information: Randomization and HIV Testing in Malawi," Rebecca
Thornton, Harvard University

"Affective Forecasting, Adaptation, and Health," Tim Wilson, University of Virginia and Daniel
Gilbert, Harvard University

12:30 - 1:30: Lunch

1:30 - 3:00: **Stereotype Threat, Education and Poverty**

“Stereotype and Social-Identity Threat,” Claude Steele, Stanford University

“Experimental Analysis of Neighborhood Effects on Youth,” Larry Katz, Harvard University and
Jeffrey Kling, Princeton University

3:00 - 3:15: Break

3:15 - 4:45: **Persuasion and Choices**

“Understanding Multiple Roles for Variables in Persuasion: The Impact of Emotion
as a Case Study,” Richard Petty, The Ohio State University

"Understanding Technology Adoption: Fertilizer in Western Kenya," Ester Duflo, Massachusetts
Institute of Technology

4:45 – 5:30: **General Discussion**

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“Action Research in Psychology and Economics”

Saturday, March 5 (closed to the public)
William James Hall, Room 105

8:30 - 9:00: Continental Breakfast

9:00 - 10:30: **Discrimination**

Mahzarin Banaji, Harvard University

Abhijit Banerjee, Massachusetts Institute of Technology

10:30 - 10:45: Break

10:45 - 12:15: **Health Messages**

Michael Kremer, Harvard University

Peter Salovey, Yale University

12:15 - 1:15: Lunch

1:15 - 3:15: **Culture, Class, Poverty and Well-Being**

Hazel Markus, Stanford University

Jeffrey Kling, Princeton University and Larry Katz, Harvard University

Marianne Bertrand, University of Chicago and Eldar Shafir, Princeton University

3:15 - 3:30: Break

3:30 - 4:30: **Designs in Progress:**

Dean Karlan, Yale University

Jeffrey Kling, Princeton University

4:30 – 5:30: **General Discussion**

7:00 – 7:30 **Cocktails – Harvard Faculty Club, Theater Room**

7:30 – 10:00 **Dinner – Harvard Faculty Club, Theater Room**

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March 4-5, 2005 Conference Participant List

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